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DEPARTMENT OF NATURAL RESOURCES

Division of Oil, Gas & Mining

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Inspection Report

Minerals Regulatory Program

Report Date October 26, 2006

Supervisor 1027

Mine Name: Hogsback
Operator Name: Brush Resources

Permit number: M0230053
Inspection Date: October 19, 2006
Time: 9:20 AM-12:50 PM

Inspector(s): Paul Baker
Other Participants: John Wagner and Rob Dalton
Mine Status: Reclaimed

Weather: Mostly clear, 40-50s

Elements of Inspection	Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Public Safety (shafts, adits, trash, signs, highwalls)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Protection of Drainages / Erosion Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Deleterious Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Roads (maintenance, surfacing, dust control, safety)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Concurrent Reclamation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts, drill holes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Water Impoundments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Revegetation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Purpose of Inspection:

The purpose of the inspection was to measure vegetation cover in the reclaimed area and see if it meets revegetation success standards.

Inspection Summary:

I measured cover of perennial vegetation in five areas of the mine and two undisturbed areas. I made ocular estimates of cover in 10-39 quadrats in each of these areas. The quadrats were each about one square yard.

The undisturbed areas were a hill near the dump top and a flat area close to the access road. Both areas are probably representative of premining vegetation. They both have areas of native vegetation with other areas cheatgrass monocultures.

The values obtained are:

Area	Perennial Cover	Acreage
Dump Top	8.18	3.6
Topsoil Access	1.38	0.3
Topsoil	3.20	1.0
Haul Ramp	3.75	1.4
Access Road	3.16	1.0
Undisturbed—Hill	7.43	

Undisturbed—Flat	5.15	
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The weighted cover value for the mine area is 5.68 percent.

The undisturbed hill corresponds most closely to everything in the disturbed area except the access road to which the undisturbed flat area should be compared. I weighted the cover values for the undisturbed areas according to the corresponding disturbed areas and obtained a value of 7.12 percent cover.

Dominant species in the reclaimed area are crested wheatgrass and fourwing saltbush with some rubber rabbitbrush, Russian wild rye, shadscale, and bluebunch wheatgrass. Rubber rabbitbrush was most common in areas with a lot of rocks or gravel, and there was little grass and few weeds in these areas. Every reclaimed area except the topsoil access road has a lot of weeds, especially cheatgrass, halogeton, and annual mustards.

Bluebunch wheatgrass appears to be the dominant native grass where it exists, but it has been mostly replaced by cheatgrass.

Black sage and cheatgrass are the dominant species in the undisturbed area. Other common species include winterfat, horsebrush, and shadscale.

Conclusions and Recommendations:

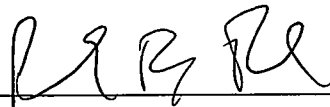
Based on the values I obtained for the undisturbed area, the revegetation success standard would be 70 percent of 7.12 or 4.98 percent. If this standard is used, the site meets the revegetation release standard.

According to the mine plan, cover in undisturbed areas is 29 percent, so the success standard would be 20.3 percent. Since the mine plan does not show cover by species, I do not know what proportion of the premining value is perennial and how much is weeds.

I recommend that the site be released from further revegetation responsibilities under the Mined Land Reclamation Act based on the data I collected. The Division needs to evaluate other aspects of reclamation to ensure they have been properly completed.

Although I believe the site has met the revegetation success criteria, I recommend that the operator reseed the access road. Of the reclaimed and revegetated areas of the mine, I believe this area has the greatest potential for improving the amount of perennial cover. Assuming the Division agrees with my recommendation to release the operator from further revegetation requirements, reseeding this area would be entirely at the operator's discretion.

Inspector's Signature



Date:

11/6/06

PBB:pjb

cc: John Wagner, Brush

Attachment: Photos

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ATTACHMENT

Photographs

M0230053, Hogsback Mine, Brush Resources

Inspection Dated: October 19, 2006; Report Dated: October 26, 2005



Photo 1. The access to the topsoil storage area is in the center of this photo with the dump top in the foreground.



Photo 3. A rocky area on tops of the dump. Note the amount of rabbitbrush.



Photo 2. Vegetation on top of the dump.



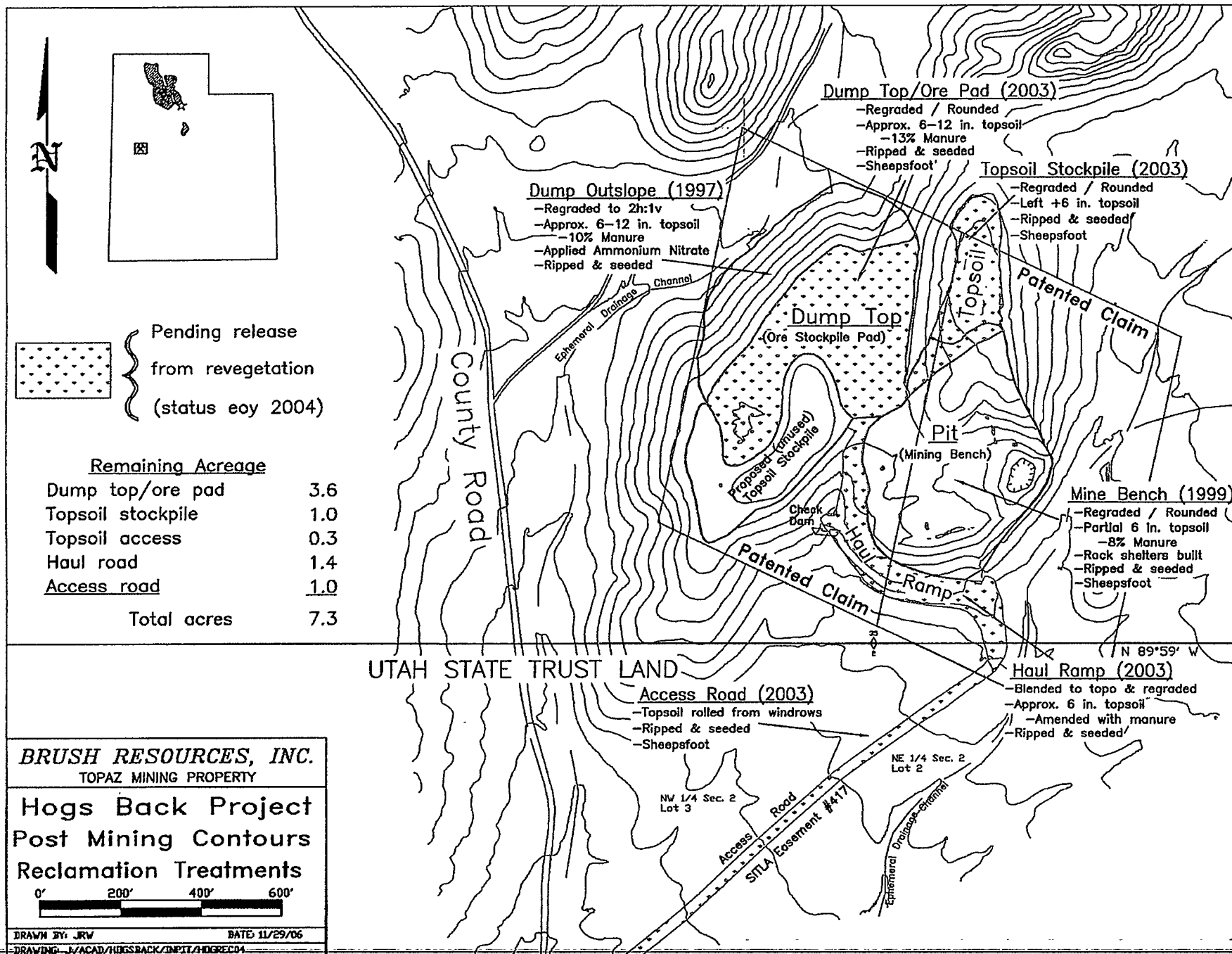
Photo 4. The access road.



Photo 5. Vegetation on the hill in the center left of this photo was measured as a revegetation success standard for most of the site.



Photo 6. I measured vegetation in the flat area near the center of the photo for comparison to the access road.



BRUSH RESOURCES, INC.
TOPAZ MINING PROPERTY

Hogs Back Project **Post Mining Contours** **Reclamation Treatments**

0' 200' 400' 600'

DRAWN BY: JRW DATE: 11/29/06
DRAWING: J/ACAD/HOGSBACK/INPIT/HOGREC04